

REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the above amendment and following remarks is respectfully requested.

Claims 16-18, 20-30, 32, and 34 are pending. In the present amendment, Claims 16-18, 20, 23, 24, 27-29, 30, and 34 are amended; and Claim 19 is canceled without prejudice or disclaimer. Support for the present amendment can be found in Fig. 3 and in Claim 19. Thus, it is respectfully submitted that no new matter is added.

In the outstanding Office Action, Claims 16-30, 32, and 34 were rejected under 35 U.S.C. § 112, first paragraph; Claims 16-30, 32, and 34 were rejected under 35 U.S.C. § 112, second paragraph; Claims 16-18, 26, and 29, 30, and 32 were rejected under 35 U.S.C. § 103(a) as unpatentable over Zahrah et al. (U.S. Patent No. 6,402,500, hereinafter “Zahrah”) in view of Kita (JP 04-97964); Claims 19-24, and 34 were rejected under 35 U.S.C. § 103(a) as unpatentable over Zahrah in view of Kita and Souers et al. (U.S. Patent No. 5,296,202, hereinafter “Souers”); Claim 25 was rejected under 35 U.S.C. § 103(a) as unpatentable over Zahrah in view of Kita, Souers and Olson et al. (U.S. Patent No. 4,437,613, hereinafter “Olson”); and Claims 27-28 were rejected under 35 U.S.C. § 103(a) as unpatentable over Zahrah in view of Kita and Bottoms (U.S. Patent No. 3,780,887).

In response to the rejection under 35 U.S.C. § 112, first paragraph, the system recited in amended Claim 16 includes at least one deflector placed above a section of the mold, the deflector intercepting at least part of the ejected powder, and redirecting this intercepted powder towards the section of the mold. As shown in Fig. 3, the internal volume of the mold is divided into an array of several sections. Assuming that all the internal volume of the mold is divided into an array of sections, then at least one deflectors will be positioned above at least one, but not all, of these sections. For example, in Fig. 3, the internal volume of the mold is divided into two sections (projections of the limits of these two sections are shown in

Fig. 3 by dashed lines). As shown in Fig. 3, by the location of the falling powder, the deflector 19 is located above a small section and the deflectors 16, 17, 18 are located above a larger section. Accordingly, it is respectfully submitted that the claims are fully supported by the disclosure and it is requested that the rejection under 35 U.S.C. § 112, first paragraph be withdrawn.

In response to the rejection under 35 U.S.C. § 112, second paragraph, the claims are hereby amended to cure the issues cited in the Office Action. Specifically, Claim 16 no longer recites an internal volume “virtually” divided. Further, “the section of the mold **above which** the at least one deflector is placed,” recited in Claims 16 and 30 means that the at least one **deflector** is placed above the section of the mold. Thus, the claims do not include contradictory limitations. In view of the amended claims, it is believed that all pending claims are definite and no further rejections on that basis are anticipated. However, if the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work with the Examiner in a joint effort to derive mutually acceptable language.

Turning now to the rejections under 35 U.S.C. § 103(a), Applicant respectfully requests reconsideration of these rejections and traverses these rejections, as discussed below.

Claim 16 is amended to include the features of Claim 19, and recites, in part, “wherein the at least one means for ejecting the powder is a rotating device, and wherein at least one of the deflectors is coupled to the rotating device.” It is respectfully submitted that the cited references do not disclose or suggest every feature recited in amended Claim 16.

Zahrah describes a delivery and filling system for filling a cavity with a particulate material. The system includes a mini-hopper 10, a transport device 102, and a gas control unit.¹ The mini-hopper 10 and the transport device each have a porous distributor plate 105,

¹ See Zahrah, at col. 3, lines 8-9.

through which a gas can be flown.² The central fluidizer 114 acts like a powder valve when the gas is turned on and off: when the gas is turned on, particulate material flows into the container and when gas is turned off, the flow of particulate material is cut-off immediately.³

However, the Office Action on pages 12-14 acknowledges that Zahrah and Kita do not disclose the features of Claim 19 presently recited in Claim 16. Instead, the Office Action relies on Souers to cure the deficiencies of Zahrah and Kita. Souers describes an apparatus for uniformly loading particulate material into cylindrical beds in which a rotor 20 rotates to distribute particles across a full diameter of a catalyst bed.

However, it is respectfully submitted that the cited references do not disclose or suggest deflectors “*coupled to* the rotating device” that ejects the powder, as recited in amended Claim 16. Instead, Souers in Fig. 1 merely describes the particles falling from the rotor 20 onto a bed 16, and Bottoms describes dividers 7 placed beneath and separate from the *non-rotating* receiving means 2.

Accordingly, it is respectfully requested that the rejection of Claim 16, and all claims dependent thereon, be withdrawn.

Regarding the rejections of Claims 17, 18, 20-30, 32, and 34, it is noted that these claims depend on Claim 16, and thus are believed to be patentable for at least the reasons discussed above with respect to Claim 16. Further, it is respectfully submitted that the remaining cited references (Souers, Olson, and Bottoms) do not cure any of the above-noted deficiencies of Zahrah and Kita. Moreover, the dependent claims recite additional features not suggested or disclosed by the cited references.

For example, amended Claim 27 recites at least one of the deflectors is placed in parallel with a rotation axis about which the at least one means for ejecting rotates to eject the

² See Zahrah, at col. 3, lines 10-27.

³ See Zahrah, at col. 4, lines 32-37, at col. 12, lines 51-54, and at col. 8, lines 57-61.

powder in the form of a layer. The Office Action on pages 12-14 acknowledges that Zahrah and Kita do not disclose the features of Claim 27. Instead, the Office Action relies on Bottoms to cure the deficiencies of Zahrah and Kita. Bottoms describes a rotary distributor means in dividers 7 (asserted in the Office Action as corresponding to the claimed deflectors) distribute a flow of particles received via a receiving means 2 placed on a fixed support 4. However, Bottoms merely describes dividers 7 placed beneath and separate from the *non-rotating* means 2.

Further, it is respectfully submitted that there is no apparent reason to modify the device of Zahrah with features of Souers and Bottoms, as such a modification would render the device of Zahrah unsatisfactory for its intended purpose. As discussed in MPEP §2143.01(V), a proposed modification cannot render the prior art unsatisfactory for its intended purpose. Zahrah describes that when the gas of the central fluidizer 114 is turned on, the powder 120 is freed from the central fluidizer 114, falls en masse into the space above the mold, and is funneled into the mold.⁴ A modification of the device of Zahrah with the dividers 7 of Bottoms and the rotor 20 of Souers would not disclose each of the features recited in amended Claim 27 (dependent upon amended Claim 16) and would result in the particles of Zahrah being unable to move sideways and downwards into the cavities 124 shown in Fig. 4B of Zahrah, due to the presence of the dividers 7. Thus, the device of Zahrah would be unsatisfactory for its intended purpose.

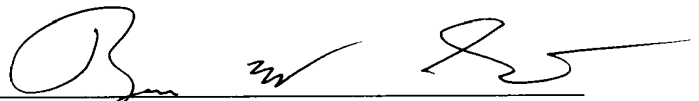
Accordingly, it is respectfully submitted that the rejections of Claims 17, 18, 20-30, 32, and 34 be withdrawn.

⁴ See Zahrah, in Figures 4A and 4B.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. A Notice of Allowance is earnestly solicited.

Respectfully submitted,

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